

Synonym

ALPG,GCAP,ALP-1,ALPPL2,PLAP-like,ALPPL,Alkaline phosphatase, germ cell type

Source

Human ALPG, His Tag(ALG-H52H9) is expressed from human 293 cells (HEK293). It contains AA Ile 20 - Asp 503 (Accession # [P10696-1](#)).  
Predicted N-terminus: Ile 20

Molecular Characterization

ALPG(Ile 20 - Asp 503)  
P10696-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 54.5 kDa. The protein migrates as 60-66 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 20 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

Storage

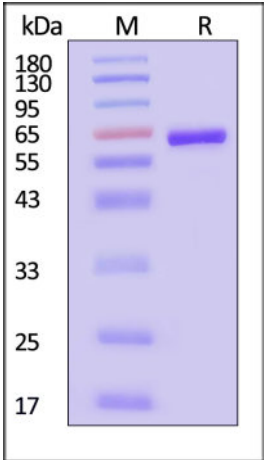
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

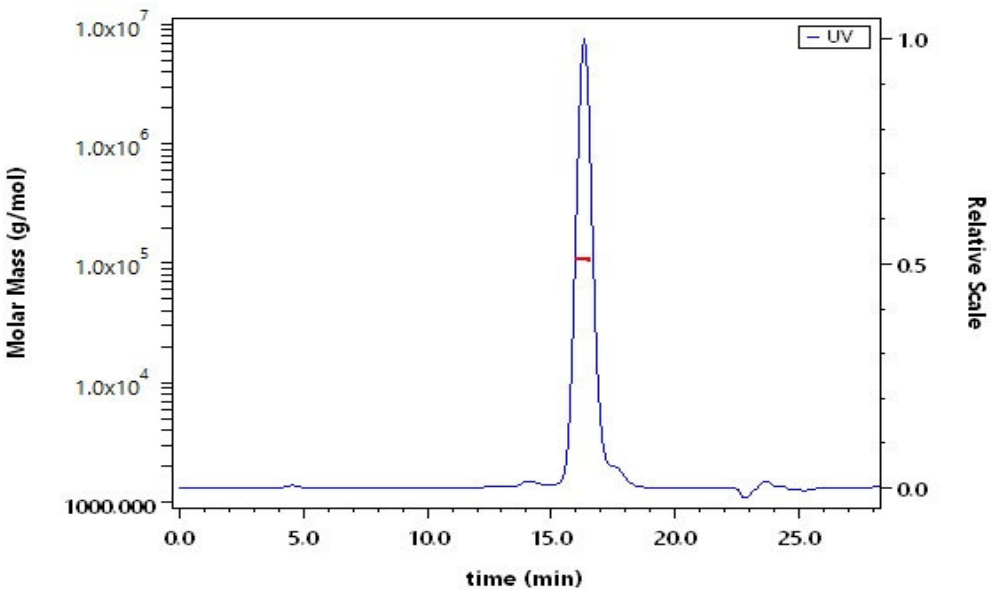
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human ALPG, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

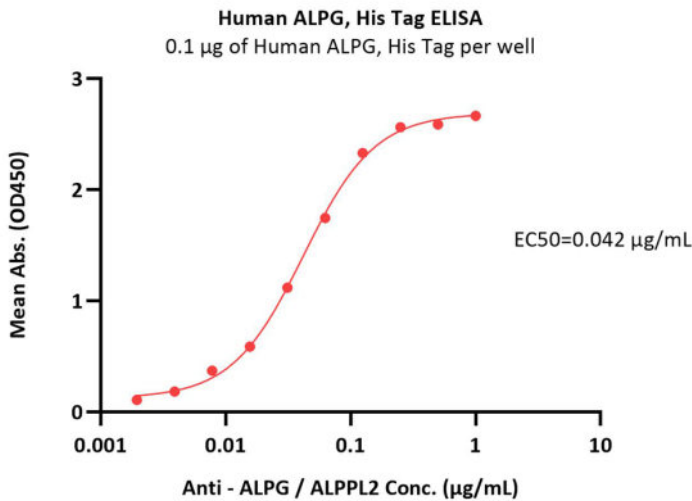


The purity of Human ALPG, His Tag (Cat. No. ALG-H52H9) is more than 90% and the molecular weight of this protein is around 97-119 kDa verified by SEC-MALS.

[Report](#)

Bioactivity-ELISA





Immobilized Human ALPG, His Tag (Cat. No. ALG-H52H9) at 1 µg/mL (100 µL/well) can bind Anti - ALPG / ALPPL2 with a linear range of 0.002-0.125 µg/mL (QC tested).

Bioactivity

Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl phosphate (4-MUP). The specific activity is >5000 pmol/min/µg (QC tested).

Background

ALPPL2 is specifically highly expressed in naïve pluripotent stem cells. Moreover, in naïve state somatic cell reprogramming, naïve-primed transformation and other systems, the use of the ALPPL2 promoter-driven fluorescent reporter system can specifically indicate the establishment or withdrawal of naïve state pluripotency, thereby identifying ALPPL2 as naïve state pluripotent. specific cell surface markers. Some studies have found that knockout of ALPPL2 can specifically affect the establishment, stability and maintenance of naïve state pluripotency, proving that ALPPL2 protein is a functional naïve state surface molecular marker.

